

### Amendments to the Claims

1. (Currently Amended) A method of increasing one or more of hair follicle development, ~~teeth development~~, or sweat gland development~~[[,]]~~ in a subject suffering from X-linked hypohidrotic ectodermal dysplasia (XLHED) or autosomal hypohidrotic ectodermal dysplasia (HED) tissue, comprising administering an amount of EDA1-II protein to the subject sufficient to promote one or more of hair follicle development or sweat gland development, wherein the EDA1-II protein comprises at least 153 amino acids of SEQ ID NO: 2-increasing EDA1-II activity in the tissue.

2. (previously presented) The method of claim 1, wherein the method is a method of increasing hair follicle development.

3. (Canceled)

4. (previously presented) The method of claim 1, wherein the method is a method of increasing sweat gland development.

5. - 22. (canceled)

23. (Currently Amended) The method of claim ~~[[22]]~~1, wherein the EDA1-II protein is a recombinant protein.

24. (Currently Amended) The method of claim ~~[[22]]~~1, wherein the EDA1-II protein comprises an amino acid sequence having at least 95% identity to SEQ ID NO: 2 and which encodes a polypeptide that enhances EDA1-II activity in the subject tissue.

25. (Currently Amended) The method of claim ~~[[22]]~~1, wherein the amino acid sequence comprises an amino acid sequence having at least 98% identity to SEQ ID NO: 2 and which encodes a polypeptide that enhances EDA1-II activity in the subject tissue.

26. (original) The method of claim 25, wherein the amino acid sequence comprises an amino acid sequence shown in SEQ ID NO: 2.

27. - 59. (canceled)

60. (Currently Amended) The method of claim ~~[[22]]~~1, wherein the EDA1-II protein comprises at least 175 amino acids of SEQ ID NO: 2.

61. (Currently Amended) The method of claim ~~[[22]]~~1, wherein the EDA1-II protein comprises at least 200 amino acids of SEQ ID NO: 2.

62. (Currently Amended) The method of claim [[22]]1, wherein the EDA1-II protein comprises at least 300 amino acids of SEQ ID NO: 2.

63. (Currently Amended) The method of claim [[22]]1, wherein the EDA1-II protein is a fusion protein.

64. (canceled)

65. (Currently Amended) The method of claim [[22]]1, wherein the EDA1-II protein comprises amino acids 239-391 of SEQ ID NO: 2.

66. (Currently Amended) The method of claim [[22]]1, wherein the EDA1-II protein comprises amino acids 153-391 of SEQ ID NO: 2.

67. (Currently Amended) The method of claim [[22]]1, wherein the EDA1-II protein comprises amino acids 133-391 of SEQ ID NO: 2.

68. (Currently Amended) The method of claim [[22]]1, wherein the EDA1-II protein comprises the C-terminal 240 amino acids of SEQ ID NO: 2.

69. – 71. (Canceled)

72. (Currently Amended) A method of increasing hair follicle development in a subject suffering from X-linked hypohidrotic ectodermal dysplasia (XLHED) or autosomal hypohidrotic ectodermal dysplasia (HED) tissue, comprising administering an amount of EDA1-II protein to the subject tissue sufficient to promote hair follicle development, wherein the EDA1-II protein comprises at least 153 amino acids of SEQ ID NO: 2.

73. (previously presented) The method of claim 72, wherein the EDA1-II protein comprises amino acids 239-391 of SEQ ID NO: 2.

74. (previously presented) The method of claim 72, wherein administering an amount of EDA1-II protein to the tissue comprises intraperitoneal administration.

75. (Currently Amended) A method of increasing sweat gland development in a subject suffering from X-linked hypohidrotic ectodermal dysplasia (XLHED) or autosomal hypohidrotic ectodermal dysplasia (HED) tissue, comprising administering an amount of EDA1-II protein to the subject tissue sufficient to promote sweat gland development, wherein the EDA1-II protein comprises at least 153 amino acids of SEQ ID NO: 2.

76. (previously presented) The method of claim 75, wherein the EDA1-II protein comprises amino acids 239-391 of SEQ ID NO: 2.

77. (previously presented) The method of claim 75, wherein administering an amount of EDA1-II protein to the tissue comprises intraperitoneal administration.